

FORM.—Head large, sub-depressed, and much inflated about the gills: body compressed towards the tail. Depth at the pectorals contained about five and a half times in the length: thickness at the same point about three-fourths of the depth. Head about four and a half times in the length; its breadth nearly equal to its own length. Profile nearly horizontal. Eyes moderately large, with a diameter nearly one-fourth that of the head: the intermediate space a little hollowed out, and scarcely more than half a diameter in breadth. Some appearance of a shallow groove on the nape reaching to the first dorsal. Gape reaching to beneath the anterior angle of the eye. Jaws equal: each with a broad band of velutine teeth, the outer row stronger than the others, and slightly hooked; of these stronger ones there are twenty six in the upper jaw; below they are fewer, smaller, and more irregular: no canines: no vomerine or palatine teeth.

Pectorals about one-fifth of the entire length, oval; the first six or seven rays nearly free to their base, and setaceous, like those of *G. niger*; the sixteen that follow connected by membrane as usual, and much branched. Ventrals united in the usual manner, and a little shorter than the pectorals. The first dorsal commencing a very little behind the point of attachment of the pectorals, and reaching to the extremity of those fins when laid back: the anterior spines rather exceeding in length half the depth of the body; the last three gradually decreasing, with the membrane terminating at the foot of the second dorsal. This last fin with the first ray simple, and of the same height with the anterior rays of the first dorsal; those which follow, to the number of nine, nearly of the same height, and branched; from the root of the ninth springs a simple ray which might be reckoned as distinct, and if so, the entire number would be ten. Anal commencing a little more backward, and terminating a little sooner than the second dorsal, to which in other respects it answers; the last ray double as before: both these fins terminate in a point behind. Space between the anal and the caudal rather more than one-fifth of the entire length, and equalling twice the depth immediately beneath. Caudal rounded, about one-sixth of the entire length; the division between the principal and accessory rays (which last are numerous, especially above), not well marked; the former much branched. The usual papilla behind the vent.

No visible lateral line. Scales rather large; about thirty-seven in a longitudinal line, and eleven in a vertical; ciliated, the concealed portion of each scale with an irregular fan of very numerous striæ, amounting to twenty-five or more. Skin of the suborbital marked with four longitudinal lines of salient dots, the third from the top forking posteriorly into two: a similar line at the upper part of the opercle at the boundary of the scales, whence another passes vertically across the branchial membrane; behind this is a third shorter one, taking an oblique direction backwards.

COLOUR—(*In spirits.*) Dusky grey, with about ten, rather indistinct longitudinal dark lines on the body, extending from the pectorals to the caudal. Fins dusky, with some indication of small irregular whitish spots scattered here and there. A dark spot on the upper half of the eye.

Habitat, Galapagos Archipelago.

This is undoubtedly a new species. It belongs to the same section as the *G. niger* of the European seas, which in form it very much resembles, especially in its large inflated head, and in having the uppermost rays of the pectorals free and setaceous. It differs, however, in having fewer rays in the dorsal and anal

fins, and consequently a larger interval between the anal and the caudal; also, in the number and arrangement of the dotted lines on the cheeks. The colours are likewise different; and, in the living fish, in which they were not noticed, probably the dark longitudinal lines, alluded to in the description above, are much more conspicuous than they are at present.

This species was taken by Mr. Darwin off Chatham Island, in the Galapagos Archipelago.

2. GOBIUS OPHICEPHALUS. *Jen.*

PLATE XIX. FIG. 3

G. pallenti-plumbeus, fusco-reticulatus: corpore elongato, gracili, undique alepidoto: capite lato, depresso, genis tumidis; his et rostro punctis valde salientibus, creberrimis, lineis undantibus dispositis: maxillis æqualibus: dentibus velutinis; externis, præsertim lateralibus, fortioribus, aculeiformibus; caninis nullis: oculis parvis, prominulis, intervallo plus quam diametrum æquante: pinnis dorsalibus subcontiguïs, altitudine subæqualibus; pectoralibus radiis omnibus membraná inclusis; caudali rotundatâ, radiis clausis, subacutâ.

D. 8—1/16; A. 1/13; C. 17, &c.; P. 21; V. 1/5.

LONG. unc. 2. lin. 11.

FORM.—Body considerably elongated, and compressed posteriorly: the greatest depth beneath the first dorsal, equalling rather less than one-eighth of the entire length: thickness at that point rather less than the depth. Head broader than the body, very much flattened in the crown behind the eyes, with the cheeks tumid, and, on the whole, snake-like in appearance: its length one-fifth of the entire length; its breadth two-thirds of its own length. Eyes small, but rather prominent, high in the cheeks, with a diameter scarcely exceeding a line in length, or about one-sixth that of the head; the space between a little hollowed out, and nearly a diameter and a half across. Snout short and obtuse: jaws equal; the gape not quite reaching to beneath the middle of the orbit. The teeth form a broad velutine band in each jaw, with those in the outer row strong and slightly hooked: of these last there are about twenty in the upper, the lateral ones being stronger than those in front; in the lower they are not so numerous, and more irregular: none that can be strictly called canines: likewise no vomerine or palatine teeth.

Pectorals one-sixth of the entire length, oval, with the middle rays longest; all the rays included in the membrane. Ventrals united; about two-thirds the length of the pectorals. First dorsal extending beyond the extremities of the pectorals; the rays very gradually decreasing in length, the membrane beyond the last also sloping very gradually down till it nearly reaches the second dorsal, which it does not quite touch. Rays of the second dorsal of nearly uniform height, about equalling the longest of those in the first, also equalling the depth of the body beneath. The last ray in both these fins is double, as in the last species. The anal commences beneath the fourth ray of the second dorsal, and terminates a little sooner than that fin. The caudal, when the rays are spread, appears rounded; but when closed, somewhat pointed: